

PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement facilitated by the Institute of Smart Structures and Systems



Module PMRF-ISSS070

Turbulence

Name of the PMRF student

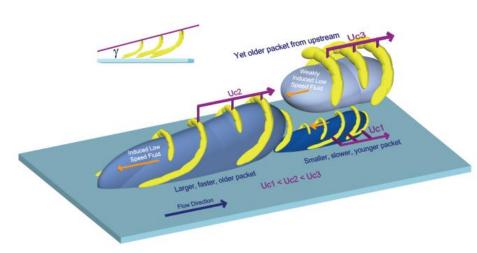
Aditya Anand

Required background of the students taught

Mechanical Engineering, Aerospace Engineering, Civil Engineering

Online session coordinator

Will be chosen from the list of registrants



Hairpin packets in wall bounded turbulent flows. Image taken from Adrian, R. J. (2007) *Phys. Fluids*, 19(4), p.041301

Details of the content of the module

An introductory course on Turbulence. This course will help students wanting to pursue research in the field of turbulence. The course will cover the following topics:

- 1. Introduction to Turbulent Flows
- 2. The equations of motion
- 3. Statistical description of turbulent flows
- 4. Mean flow equations
- 5. Free shear flows
- 6. Scales of turbulent motion
- 7. Wall bounded flows

The course will follow the textbook "Turbulent Flows" by Stephen B Pope.

Schedule of the module

Course starts on: 21st April, 2023

Course ends on: 14th May, 2023

Classes on: Friday, Saturday and Sunday

Timings: 10:00 AM - 10:30 AM

Meeting link: Will be shared later

Contact email ID: isss.forum@gmail.com

Registration link:

https://forms.gle/qBPREkS65ACMQCau6